

# 863 Report of Test Results

Functional Group ID=**RT**

## Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Report of Test Results Transaction Set (863) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to transmit the results of tests performed to satisfy a specified product or process requirement. This includes, but is not limited to, test data such as inspection data, certification data, and statistical process control measurements.

## Notes:

This Transaction Set is used for reporting individual sample test results for Lead and Copper, Chemicals, Radionuclides, Water Quality, Total Coliform and Microbiological samples.

## Heading:

	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
Must Use	010	ST	Transaction Set Header	M	1		
Must Use	020	BTR	Beginning Segment for Test Results	M	1		
Not Used	040	REF	Reference Identification	O	12		
Not Used	050	DTM	Date/Time Reference	O	10		
Not Used	060	PID	Product/Item Description	O	200		
Not Used	065	TMD	Test Method	O	1		
Not Used	070	MEA	Measurements	O	20		
			LOOP ID - N1				
						>1	
	080	N1	Name	O	1		
Not Used	090	N2	Additional Name Information	O	2		
Not Used	100	N3	Address Information	O	2		
Not Used	110	N4	Geographic Location	O	1		
	120	REF	Reference Identification	O	12		
			LOOP ID - PER				
						>1	
	130	PER	Administrative Communications Contact	O	1		
Not Used	140	REF	Reference Identification	O	>1		n1

## Detail:

	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max.Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
			LOOP ID - LIN				
						>1	
	010	LIN	Item Identification	O	1		
	020	PID	Product/Item Description	O	1000		
Not Used	025	TMD	Test Method	O	1		
Not Used	030	MEA	Measurements	O	20		
Not Used	031	PSD	Physical Sample Description	O	>1		
Not Used	032	SPS	Sampling Parameters for Summary Statistics	O	>1		
	034	QTY	Quantity	O	10		
	040	DTM	Date/Time Reference	O	10		

	042	NTE	Note/Special Instruction	O	1
	043	NTE	Note/Special Instruction	O	1
	045	NTE	Note/Special Instruction	O	1
	050	REF	Reference Identification	O	1000
LOOP ID - N1					10
	051	N1	Name	O	1
Not Used	052	N2	Additional Name Information	O	2
Not Used	053	N3	Address Information	O	2
Not Used	054	N4	Geographic Location	O	1
	055	REF	Reference Identification	O	10
	056	PER	Administrative Communications Contact	O	3
Not Used	057	QTY	Quantity	O	10
LOOP ID - CID					>1
	060	CID	Characteristic/Class ID	O	1
Not Used	070	UIT	Unit Detail	O	1
Not Used	090	PSD	Physical Sample Description	O	>1
Not Used	100	SPS	Sampling Parameters for Summary Statistics	O	>1
Not Used	120	DTM	Date/Time Reference	O	10
Not Used	130	REF	Reference Identification	O	10
LOOP ID - MEA					>1
	150	MEA	Measurements	O	1
	160	DTM	Date/Time Reference	O	10
	170	REF	Reference Identification	O	10
LOOP ID - LM					>1
	172	LM	Code Source Information	O	1
Must Use	174	LQ	Industry Code	M	>1
LOOP ID - STA					>1
Not Used	180	STA	Statistics	O	1
Not Used	190	DTM	Date/Time Reference	O	10
Not Used	195	REF	Reference Identification	O	10
LOOP ID - LM					>1
Not Used	197	LM	Code Source Information	O	1
Not Used	200	LQ	Industry Code	M	>1
LOOP ID - TMD					100
	201	TMD	Test Method	O	1
Not Used	202	MEA	Measurements	O	>1
Not Used	203	DTM	Date/Time Reference	O	10
Not Used	204	REF	Reference Identification	O	10
LOOP ID - TSP					>1
Not Used	210	TSP	Test Period or Interval	O	1
Not Used	220	MEA	Measurements	O	>1
Not Used	230	DTM	Date/Time Reference	O	10
Not Used	240	REF	Reference Identification	O	10
LOOP ID - LM					>1
Not Used	242	LM	Code Source Information	O	1
Not Used	244	LQ	Industry Code	M	>1

## Summary:

	<u>Pos.</u> <u>No.</u>	<u>Seg.</u> <u>ID</u>	<u>Name</u>	<u>Req.</u> <u>Des.</u>	<u>Max.Use</u>	<u>Loop</u> <u>Repeat</u>	<u>Notes and</u> <u>Comments</u>
	005	CTT	Transaction Totals	O	1		
Must Use	010	SE	Transaction Set Trailer	M	1		

## Transaction Set Notes

1. The REF segment is to be used to send identification numbers associated with party referenced in the PER.

**Segment:** **ST** Transaction Set Header  
**Position:** 010  
**Loop:**  
**Level:** Heading  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To indicate the start of a transaction set and to assign a control number.  
**Syntax Notes:**  
**Semantic Notes:** 1 The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).  
**Comments:**

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
>>	ST01	143	<b>Transaction Set Identifier Code</b> Code uniquely identifying a Transaction Set '863' X12.41 Report of Test Results. This implementation of the 863 Report of Test Results is used for the submission of drinking water test results from laboratories to State agencies. Refer to 003061 Data Element Dictionary for acceptable code values.	<b>M ID 3/3</b>
>>	ST02	329	<b>Transaction Set Control Number</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	<b>M AN 4/9</b>

<b>Segment:</b>	<b>BTR</b> Beginning Segment for Test Results
<b>Position:</b>	020
<b>Loop:</b>	
<b>Level:</b>	Heading
<b>Usage:</b>	Mandatory
<b>Max Use:</b>	1
<b>Purpose:</b>	To indicate the beginning of a test results transaction set
<b>Syntax Notes:</b>	
<b>Semantic Notes:</b>	<ol style="list-style-type: none"> <li>1 If BTR01 equals "01", "02", "03", "04", "05", "18" or "19", then BTR06 is required to identify the original test report reference number transmitted.</li> <li>2 BTR02 is the date that this transaction set was created by the sending party.</li> <li>3 BTR03 is the time that this transaction set was created by the sending party.</li> <li>4 BTR05 specifies test results report reference number created by the sending party.</li> </ol>
<b>Comments:</b>	

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
>>	<b>BTR01</b>	<b>353</b>	<b>Transaction Set Purpose Code</b> Code identifying purpose of transaction set Code identifying purpose of the transaction set. '00' Original '15' Resubmission Refer to 003061 Data Element Dictionary for acceptable code values.	<b>M ID 2/2</b>
>>	<b>BTR02</b>	<b>373</b>	<b>Date</b> Date (YYMMDD) Creation date for drinking water test results report. YYMMDD	<b>M DT 6/6</b>
X	<b>BTR03</b>	<b>337</b>	<b>Time</b> Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)	<b>O TM 4/8</b>
>>	<b>BTR04</b>	<b>755</b>	<b>Report Type Code</b> Code indicating the title or contents of a document, report or supporting item Code identifying the type of report 'RT' Report of test results and Analysis report 'W2' Summary (Safe Drinking Water Report) Refer to 003061 Data Element Dictionary for acceptable code values.	<b>O ID 2/2</b>
>>	<b>BTR05</b>	<b>127</b>	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Number assigned by laboratory for the report.	<b>O AN 1/30</b>
	<b>BTR06</b>	<b>127</b>	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Required when report is a resubmission to provide original report number.	<b>O AN 1/30</b>
X	<b>BTR07</b>	<b>786</b>	<b>Security Level Code</b> Code indicating the level of confidentiality assigned by the sender to the information following Refer to 003061 Data Element Dictionary for acceptable code values.	<b>O ID 2/2</b>

<b>Segment:</b>	<b>N1</b> Name
<b>Position:</b>	080
<b>Loop:</b>	N1
<b>Level:</b>	Heading
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To identify a party by type of organization, name, and code
<b>Syntax Notes:</b>	<b>1</b> At least one of N102 or N103 is required. <b>2</b> If either N103 or N104 is present, then the other is required.
<b>Semantic Notes:</b>	
<b>Comments:</b>	<b>1</b> This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party. <b>2</b> N105 and N106 further define the type of entity in N101.
<b>Notes:</b>	Two occurrences of the N1 loop are required at this location in the transaction set. One is required to identify the testing lab submitting the report. The second to identify the State/agency where the report is being sent.

#### Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
>>	N101	98	<b>Entity Identifier Code</b> Code identifying an organizational entity, a physical location, or an individual 'R5' State 'TL' Testing Lab Refer to 003061 Data Element Dictionary for acceptable code values.	<b>M ID 2/2</b>
	N102	93	<b>Name</b> Free-form name Name of the testing lab or State including agency.	<b>X AN 1/35</b>
>>	N103	66	<b>Identification Code Qualifier</b> Code designating the system/method of code structure used for Identification Code (67) Code identifying the source of the number in N104 '75' State ID number 'FN' EPA Laboratory Certification ID Refer to 003061 Data Element Dictionary for acceptable code values.	<b>X ID 1/2</b>
>>	N104	67	<b>Identification Code</b> Code identifying a party or other code Appropriate identification number	<b>X AN 2/20</b>
X	N105	706	<b>Entity Relationship Code</b> Code describing entity relationship Refer to 003061 Data Element Dictionary for acceptable code values.	<b>O ID 2/2</b>
X	N106	98	<b>Entity Identifier Code</b> Code identifying an organizational entity, a physical location, or an individual Refer to 003061 Data Element Dictionary for acceptable code values.	<b>O ID 2/2</b>

<b>Segment:</b>	<b>REF</b> <b>Reference Identification</b>
<b>Position:</b>	120
<b>Loop:</b>	N1
<b>Level:</b>	Heading
<b>Usage:</b>	Optional
<b>Max Use:</b>	12
<b>Purpose:</b>	To specify identifying information
<b>Syntax Notes:</b>	<ol style="list-style-type: none"> <li>1 At least one of REF02 or REF03 is required.</li> <li>2 If either C04003 or C04004 is present, then the other is required.</li> <li>3 If either C04005 or C04006 is present, then the other is required.</li> </ol>
<b>Semantic Notes:</b>	<ol style="list-style-type: none"> <li>1 REF04 contains data relating to the value cited in REF02.</li> </ol>
<b>Comments:</b>	
<b>Notes:</b>	This segment must be included in the N1 loop identifying the testing laboratory to convey the PIN when N101 equals 'TL'.

Data Element Summary					
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>	
>>	REF01	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification '4A' A number that uniquely identifies a testing laboratory. The number is supplied by the state or the federal government.	M	ID 2/3
	REF02	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	X	AN 1/30
X	REF03	352	<b>Description</b> A free-form description to clarify the related data elements and their content	X	AN 1/80
X	REF04	C040	<b>Reference Identifier</b> To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier	O	
X	C04001	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	M	ID 2/3
X	C04002	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	M	AN 1/30
X	C04003	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	X	ID 2/3
X	C04004	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	X	AN 1/30
X	C04005	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	X	ID 2/3
X	C04006	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	X	AN 1/30

**Segment:** **PER Administrative Communications Contact**  
**Position:** 130  
**Loop:** PER  
**Level:** Heading  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To identify a person or office to whom administrative communications should be directed

**Syntax Notes:**

- 1 If either PER03 or PER04 is present, then the other is required.
- 2 If either PER05 or PER06 is present, then the other is required.
- 3 If either PER07 or PER08 is present, then the other is required.

**Semantic Notes:**

**Comments:**

**Notes:** This segment should be included in the N1 loop identifying the Testing Lab if an identification of the certifying party is required.

#### Data Element Summary

		<u>Data</u>	<u>Name</u>	<u>Attributes</u>		
Ref.	Des.	Element				
>>	PER01	366	<b>Contact Function Code</b>	<b>M</b>	<b>ID</b>	<b>2/2</b>
			Code identifying the major duty or responsibility of the person or group named 'CE' Certifier			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
	PER02	93	<b>Name</b>	<b>O</b>	<b>AN</b>	<b>1/35</b>
			Free-form name Name of certifying individual.			
X	PER03	365	<b>Communication Number Qualifier</b>	<b>X</b>	<b>ID</b>	<b>2/2</b>
			Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.			
X	PER04	364	<b>Communication Number</b>	<b>X</b>	<b>AN</b>	<b>1/80</b>
			Complete communications number including country or area code when applicable			
X	PER05	365	<b>Communication Number Qualifier</b>	<b>X</b>	<b>ID</b>	<b>2/2</b>
			Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.			
X	PER06	364	<b>Communication Number</b>	<b>X</b>	<b>AN</b>	<b>1/80</b>
			Complete communications number including country or area code when applicable			
X	PER07	365	<b>Communication Number Qualifier</b>	<b>X</b>	<b>ID</b>	<b>2/2</b>
			Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.			
X	PER08	364	<b>Communication Number</b>	<b>X</b>	<b>AN</b>	<b>1/80</b>
			Complete communications number including country or area code when applicable			
X	PER09	443	<b>Contact Inquiry Reference</b>	<b>O</b>	<b>AN</b>	<b>1/20</b>
			Additional reference number or description to clarify a contact number			



<b>Segment:</b>	<b>LIN</b> Item Identification
<b>Position:</b>	010
<b>Loop:</b>	LIN
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To specify basic item identification data
<b>Syntax Notes:</b>	<ol style="list-style-type: none"> <li>1 If either LIN04 or LIN05 is present, then the other is required.</li> <li>2 If either LIN06 or LIN07 is present, then the other is required.</li> <li>3 If either LIN08 or LIN09 is present, then the other is required.</li> <li>4 If either LIN10 or LIN11 is present, then the other is required.</li> <li>5 If either LIN12 or LIN13 is present, then the other is required.</li> <li>6 If either LIN14 or LIN15 is present, then the other is required.</li> <li>7 If either LIN16 or LIN17 is present, then the other is required.</li> <li>8 If either LIN18 or LIN19 is present, then the other is required.</li> <li>9 If either LIN20 or LIN21 is present, then the other is required.</li> <li>10 If either LIN22 or LIN23 is present, then the other is required.</li> <li>11 If either LIN24 or LIN25 is present, then the other is required.</li> <li>12 If either LIN26 or LIN27 is present, then the other is required.</li> <li>13 If either LIN28 or LIN29 is present, then the other is required.</li> <li>14 If either LIN30 or LIN31 is present, then the other is required.</li> </ol>
<b>Semantic Notes:</b>	1 LIN01 is the line item identification
<b>Comments:</b>	<ol style="list-style-type: none"> <li>1 See the Data Dictionary for a complete list of IDs.</li> <li>2 LIN02 through LIN31 provide for fifteen different product/service IDs for each item. For example: Case, Color, Drawing No., UPC No., ISBN No., Model No., or SKU.</li> </ol>
<b>Notes:</b>	Note: One LIN loop should be created for each sample being reported. Each LIN loop must start with the LIN segment. A transaction set can accommodate multiple sample reports.

Data Element Summary				
	Ref. Des.	Data Element	Name	Attributes
X	LIN01	350	<b>Assigned Identification</b> Alphanumeric characters assigned for differentiation within a transaction set	O AN 1/20
>>	LIN02	235	<b>Product/Service ID Qualifier</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234) 'TU' Report Type/Tested Material Identification Number	M ID 2/2
>>	LIN03	234	<b>Product/Service ID</b> Identifying number for a product or service Sample Category Identification 'PB' Lead and Copper 'CH' Chemicals 'GE' General Samples 'RA' Radionuclides 'PP' Water Quality 'TC' Total Coliform 'MB' Microbiological	M AN 1/40
>>	LIN04	235	<b>Product/Service ID Qualifier</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234) 'S4' Laboratory Sample Identification Refer to 003061 Data Element Dictionary for acceptable code values.	X ID 2/2
>>	LIN05	234	<b>Product/Service ID</b>	X AN 1/40

			Identifying number for a product or service			
			Appropriate sample number as assigned by the lab. Used as an identification of the sample.			
	LIN06	235	<b>Product/Service ID Qualifier</b>	X	ID	2/2
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
			'S5' State Sample Identification			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
	LIN07	234	<b>Product/Service ID</b>	X	AN	1/40
			Identifying number for a product or service			
			Appropriate sample as assigned by the state. Used as an identification of the sample.			
	LIN08	235	<b>Product/Service ID Qualifier</b>	X	ID	2/2
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
			'S6' Previous sample identification			
			Note: Required when sample type in PID04 equals RP (Repeat) or RI (Replacement for invalid result).			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
	LIN09	234	<b>Product/Service ID</b>	X	AN	1/40
			Identifying number for a product or service			
			Note: Appropriate sample number as assigned by the lab or the state. Used as an identification of the previous sample.			
	LIN10	235	<b>Product/Service ID Qualifier</b>	X	ID	2/2
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
			'TU' Lab Composite Sample Number			
			Note: Required when sample is part of a composite.			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
	LIN11	234	<b>Product/Service ID</b>	X	AN	1/40
			Identifying number for a product or service			
			Note: Appropriate composite sample number as assigned by the lab or the state. Used as an identification of all samples in the composite.			
X	LIN12	235	<b>Product/Service ID Qualifier</b>	X	ID	2/2
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
X	LIN13	234	<b>Product/Service ID</b>	X	AN	1/40
			Identifying number for a product or service			
X	LIN14	235	<b>Product/Service ID Qualifier</b>	X	ID	2/2
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
X	LIN15	234	<b>Product/Service ID</b>	X	AN	1/40
			Identifying number for a product or service			
X	LIN16	235	<b>Product/Service ID Qualifier</b>	X	ID	2/2
			Code identifying the type/source of the descriptive number used in Product/Service ID (234)			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
X	LIN17	234	<b>Product/Service ID</b>	X	AN	1/40
			Identifying number for a product or service			
X	LIN18	235	<b>Product/Service ID Qualifier</b>	X	ID	2/2
			Code identifying the type/source of the descriptive number used in			

			Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.			
X	LIN19	234	<b>Product/Service ID</b> Identifying number for a product or service	X	AN	1/40
X	LIN20	235	<b>Product/Service ID Qualifier</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	X	ID	2/2
X	LIN21	234	<b>Product/Service ID</b> Identifying number for a product or service	X	AN	1/40
X	LIN22	235	<b>Product/Service ID Qualifier</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	X	ID	2/2
X	LIN23	234	<b>Product/Service ID</b> Identifying number for a product or service	X	AN	1/40
X	LIN24	235	<b>Product/Service ID Qualifier</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	X	ID	2/2
X	LIN25	234	<b>Product/Service ID</b> Identifying number for a product or service	X	AN	1/40
X	LIN26	235	<b>Product/Service ID Qualifier</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	X	ID	2/2
X	LIN27	234	<b>Product/Service ID</b> Identifying number for a product or service	X	AN	1/40
X	LIN28	235	<b>Product/Service ID Qualifier</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	X	ID	2/2
X	LIN29	234	<b>Product/Service ID</b> Identifying number for a product or service	X	AN	1/40
X	LIN30	235	<b>Product/Service ID Qualifier</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234) Refer to 003061 Data Element Dictionary for acceptable code values.	X	ID	2/2
X	LIN31	234	<b>Product/Service ID</b> Identifying number for a product or service	X	AN	1/40

<b>Segment:</b>	<b>PID</b> <b>Product/Item Description</b>
<b>Position:</b>	020
<b>Loop:</b>	LIN
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1000
<b>Purpose:</b>	To describe a product or process in coded or free-form format
<b>Syntax Notes:</b>	<ol style="list-style-type: none"> <li>1 If PID04 is present, then PID03 is required.</li> <li>2 At least one of PID04 or PID05 is required.</li> <li>3 If PID07 is present, then PID03 is required.</li> <li>4 If PID08 is present, then PID03 is required.</li> </ol>
<b>Semantic Notes:</b>	<ol style="list-style-type: none"> <li>1 Use PID03 to indicate the organization that publishes the code list being referred to.</li> <li>2 PID04 should be used for industry-specific product description codes.</li> <li>3 PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.</li> <li>4 PID09 is used to identify the language being used in PID05.</li> </ol>
<b>Comments:</b>	<ol style="list-style-type: none"> <li>1 If PID01 equals "F", then PID05 is used. If PID01 equals "S", then PID04 is used. If PID01 equals "X", then both PID04 and PID05 are used.</li> <li>2 Use PID06 when necessary to refer to the product surface or layer being described in the segment.</li> <li>3 PID07 specifies the individual code list of the agency specified in PID03.</li> </ol>
<b>Notes:</b>	<p>Note: For a Test Results report at least one iteration of PID is required for each sample to identify Sample Type and Compliance.</p> <p>This Segement is REQUIRED</p>

#### Data Element Summary

Ref.	Data	Name	Attributes
<u>Des.</u>	<u>Element</u>		
>> <b>PID01</b>	<b>349</b>	<b>Item Description Type</b> Code indicating the format of a description Code indicating the format of a description. 'S' Structured	<b>M ID 1/1</b>
>> <b>PID02</b>	<b>750</b>	Refer to 003061 Data Element Dictionary for acceptable code values. <b>Product/Process Characteristic Code</b> Code identifying the general class of a product or process characteristic Code Values 'CO' Collection Method Code 'LC' Lead/Copper Sample Type 'RM' Results Method Code 'RR' Rejection Reason 'ST' Sample Type.  Note: At least one ST (Sample Type) is required for each LIN loop. If sample is Lead/Copper one LC is also required. Refer to 003061 Data Element Dictionary for acceptable code values.	<b>O ID 2/3</b>
>> <b>PID03</b>	<b>559</b>	<b>Agency Qualifier Code</b> Code identifying the agency assigning the code values 'EP' Environmental Protection Agency Refer to 003061 Data Element Dictionary for acceptable code values.	<b>M ID 2/2</b>
<b>PID04</b>	<b>751</b>	<b>Product Description Code</b> A code from an industry code list which provides specific data about a product characteristic A code from the industry code list	<b>X AN 1/12</b>

(See Appendix B)

Note: At least one code value from the Sample Type code list is required for each loop.

<b>X</b>	<b>PID05</b>	<b>352</b>	<b>Description</b>	<b>X</b>	<b>AN</b>	<b>1/80</b>
			A free-form description to clarify the related data elements and their content			
<b>X</b>	<b>PID06</b>	<b>752</b>	<b>Surface/Layer/Position Code</b>	<b>O</b>	<b>ID</b>	<b>2/2</b>
			Code indicating the product surface, layer or position that is being described			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
<b>X</b>	<b>PID07</b>	<b>822</b>	<b>Source Subqualifier</b>	<b>O</b>	<b>AN</b>	<b>1/15</b>
			A reference that indicates the table or text maintained by the Source Qualifier			
	<b>PID08</b>	<b>1073</b>	<b>Yes/No Condition or Response Code</b>	<b>O</b>	<b>ID</b>	<b>1/1</b>
			Code indicating a Yes or No condition or response			
			Compliance indication			
			'Y' For compliance			
			'N' Not for compliance			
			Note: This element is required when PID02 equals 'ST' (Sample Type) to indicate if the sample was submitted for compliance purposes.			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
<b>X</b>	<b>PID09</b>	<b>819</b>	<b>Language Code</b>	<b>O</b>	<b>ID</b>	<b>2/3</b>
			Code designating the language used in text, from a standard code list maintained by the International Standards Organization (ISO 639)			

**Segment:** QTY Quantity  
**Position:** 034  
**Loop:** LIN  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 10  
**Purpose:** To specify quantity information  
**Syntax Notes:**  
**Semantic Notes:**  
**Comments:**

Data Element Summary					
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>	
>>	QTY01	673	<b>Quantity Qualifier</b> Code specifying the type of quantity 'SW' Sample Amount '99' Quantity Used for Testing Refer to 003061 Data Element Dictionary for acceptable code values.	M	ID 2/2
>>	QTY02	380	<b>Quantity</b> Numeric value of quantity Volume of the sample	M	R 1/15
	QTY03	C001	<b>Composite Unit of Measure</b> To identify a composite unit of measure(See Figures Appendix for examples of use.)	O	
>>	C00101	355	<b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken 'ML' milliliter Refer to 003061 Data Element Dictionary for acceptable code values.	O	ID 2/2
X	C00102	1018	<b>Exponent</b> Power to which a unit is raised	O	R 1/15
X	C00103	649	<b>Multiplier</b> Value to be used as a multiplier to obtain a new value	O	R 1/10
X	C00104	355	<b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	O	ID 2/2
X	C00105	1018	<b>Exponent</b> Power to which a unit is raised	O	R 1/15
X	C00106	649	<b>Multiplier</b> Value to be used as a multiplier to obtain a new value	O	R 1/10
X	C00107	355	<b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	O	ID 2/2
X	C00108	1018	<b>Exponent</b> Power to which a unit is raised	O	R 1/15
X	C00109	649	<b>Multiplier</b> Value to be used as a multiplier to obtain a new value	O	R 1/10
X	C00110	355	<b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in	O	ID 2/2

which a measurement has been taken

Refer to 003061 Data Element Dictionary for acceptable code values.

X	C00111	1018	<b>Exponent</b> Power to which a unit is raised	O	R	1/15
X	C00112	649	<b>Multiplier</b> Value to be used as a multiplier to obtain a new value	O	R	1/10
X	C00113	355	<b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken Refer to 003061 Data Element Dictionary for acceptable code values.	O	ID	2/2
X	C00114	1018	<b>Exponent</b> Power to which a unit is raised	O	R	1/15
X	C00115	649	<b>Multiplier</b> Value to be used as a multiplier to obtain a new value	O	R	1/10

<b>Segment:</b>	<b>DTM</b> <b>Date/Time Reference</b>
<b>Position:</b>	040
<b>Loop:</b>	LIN
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	10
<b>Purpose:</b>	To specify pertinent dates and times
<b>Syntax Notes:</b>	<b>1</b> At least one of DTM02 DTM03 or DTM06 is required. <b>2</b> If either DTM06 or DTM07 is present, then the other is required.
<b>Semantic Notes:</b>	
<b>Comments:</b>	
<b>Notes:</b>	One DTM segment per LIN loop is required to identify collection date.

Data Element Summary					
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>	
>>	DTM01	374	<b>Date/Time Qualifier</b> Code specifying type of date or time, or both date and time '906' Collection Date '050' Lab Receipt Date '090' Report Start Date '091' Report End Date '406' Composite Date Refer to 003061 Data Element Dictionary for acceptable code values.	<b>M</b> <b>ID</b>	<b>3/3</b>
X	DTM02	373	<b>Date</b> Date (YYMMDD)	<b>X</b> <b>DT</b>	<b>6/6</b>
	DTM03	337	<b>Time</b> Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99) Expressed as HHMM	<b>X</b> <b>TM</b>	<b>4/8</b>
X	DTM04	623	<b>Time Code</b> Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow Refer to 003061 Data Element Dictionary for acceptable code values.	<b>O</b> <b>ID</b>	<b>2/2</b>
X	DTM05	624	<b>Century</b> The first two characters in the designation of the year (CCYY)	<b>O</b> <b>N0</b>	<b>2/2</b>
	DTM06	1250	<b>Date Time Period Format Qualifier</b> Code indicating the date format, time format, or date and time format 'D8' Date expressed CCYYMMDD Refer to 003061 Data Element Dictionary for acceptable code values.	<b>X</b> <b>ID</b>	<b>2/3</b>
	DTM07	1251	<b>Date Time Period</b> Expression of a date, a time, or range of dates, times or dates and times Expressed as CCYYMMDD	<b>X</b> <b>AN</b>	<b>1/35</b>



**Segment:** **NTE** Note/Special Instruction  
**Position:** 042  
**Loop:** LIN  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To transmit information in a free-form format, if necessary, for comment or special instruction

**Syntax Notes:**

**Semantic Notes:**

**Comments:** 1 The NTE segment permits free-form information/data which, under ANSI X12 standard implementations, is not machine processable. The use of the NTE segment should therefore be avoided, if at all possible, in an automated environment.

#### Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
X	NTE01	363	<b>Note Reference Code</b> Code identifying the functional area or purpose for which the note applies Refer to 003061 Data Element Dictionary for acceptable code values.	<b>O ID 3/3</b>
>>	NTE02	352	<b>Description</b> A free-form description to clarify the related data elements and their content	<b>M AN 1/80</b>

**Segment:** **NTE** Note/Special Instruction  
**Position:** 043  
**Loop:** LIN  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To transmit information in a free-form format, if necessary, for comment or special instruction

**Syntax Notes:**

**Semantic Notes:**

**Comments:** 1 The NTE segment permits free-form information/data which, under ANSI X12 standard implementations, is not machine processable. The use of the NTE segment should therefore be avoided, if at all possible, in an automated environment.

#### Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
X	NTE01	363	<b>Note Reference Code</b> Code identifying the functional area or purpose for which the note applies Refer to 003061 Data Element Dictionary for acceptable code values.	<b>O ID 3/3</b>
>>	NTE02	352	<b>Description</b> A free-form description to clarify the related data elements and their content	<b>M AN 1/80</b>

**Segment:** **NTE** Note/Special Instruction  
**Position:** 045  
**Loop:** LIN  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To transmit information in a free-form format, if necessary, for comment or special instruction

**Syntax Notes:**

**Semantic Notes:**

**Comments:** 1 The NTE segment permits free-form information/data which, under ANSI X12 standard implementations, is not machine processable. The use of the NTE segment should therefore be avoided, if at all possible, in an automated environment.

#### Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
X	NTE01	363	<b>Note Reference Code</b> Code identifying the functional area or purpose for which the note applies Refer to 003061 Data Element Dictionary for acceptable code values.	<b>O ID 3/3</b>
>>	NTE02	352	<b>Description</b> A free-form description to clarify the related data elements and their content	<b>M AN 1/80</b>

<b>Segment:</b>	<b>REF</b> <b>Reference Identification</b>
<b>Position:</b>	050
<b>Loop:</b>	LIN
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1000
<b>Purpose:</b>	To specify identifying information
<b>Syntax Notes:</b>	<ol style="list-style-type: none"> <li>1 At least one of REF02 or REF03 is required.</li> <li>2 If either C04003 or C04004 is present, then the other is required.</li> <li>3 If either C04005 or C04006 is present, then the other is required.</li> </ol>
<b>Semantic Notes:</b>	<ol style="list-style-type: none"> <li>1 REF04 contains data relating to the value cited in REF02.</li> </ol>
<b>Comments:</b>	
<b>Notes:</b>	At least one occurrence of the REF segment is required in the LIN loop if the sample is part of a RAD composite.

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
>>	REF01	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification 'SJ' Composite Quarter/ Set Number	M ID 2/3
	REF02	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier See Appendix I	X AN 1/30
X	REF03	352	<b>Description</b> A free-form description to clarify the related data elements and their content	X AN 1/80
X	REF04	C040	<b>Reference Identifier</b> To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier	O
X	C04001	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	X ID 2/3
X	C04002	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	X AN 1/30
X	C04003	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	X ID 2/3
X	C04004	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	X AN 1/30
X	C04005	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	X ID 2/3
X	C04006	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	X AN 1/30

<b>Segment:</b>	<b>N1</b> Name
<b>Position:</b>	051
<b>Loop:</b>	N1
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To identify a party by type of organization, name, and code
<b>Syntax Notes:</b>	<b>1</b> At least one of N102 or N103 is required. <b>2</b> If either N103 or N104 is present, then the other is required.
<b>Semantic Notes:</b>	
<b>Comments:</b>	<b>1</b> This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party. <b>2</b> N105 and N106 further define the type of entity in N101.
<b>Notes:</b>	At least two occurrences of the N1 loop are required at this location in the transaction set. One is required to identify the water system. The second should identify the water facility. A third iteration is allowed to identify the sampling point. Water system and water facility require use of the identification number. Sampling location may be designated either by identification number or name.

Data Element Summary				
Ref.	Data			
	<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
>>	<b>N101</b>	<b>98</b>	<b>Entity Identifier Code</b> Code identifying an organizational entity, a physical location, or an individual 'FA' Water Facility 'W9' Sampling Location 'WS' Water System Refer to 003061 Data Element Dictionary for acceptable code values.	<b>M ID 2/2</b>
	<b>N102</b>	<b>93</b>	<b>Name</b> Free-form name The name of the water system, water facility or sampling location	<b>X AN 1/35</b>
>>	<b>N103</b>	<b>66</b>	<b>Identification Code Qualifier</b> Code designating the system/method of code structure used for Identification Code (67) Code identifying the number in N104 'FA' Facility Refer to 003061 Data Element Dictionary for acceptable code values.	<b>X ID 1/2</b>
>>	<b>N104</b>	<b>67</b>	<b>Identification Code</b> Code identifying a party or other code Appropriate identification number	<b>X AN 2/20</b>
<b>X</b>	<b>N105</b>	<b>706</b>	<b>Entity Relationship Code</b> Code describing entity relationship Refer to 003061 Data Element Dictionary for acceptable code values.	<b>O ID 2/2</b>
<b>X</b>	<b>N106</b>	<b>98</b>	<b>Entity Identifier Code</b> Code identifying an organizational entity, a physical location, or an individual Refer to 003061 Data Element Dictionary for acceptable code values.	<b>O ID 2/2</b>

<b>Segment:</b>	<b>REF</b> <b>Reference Identification</b>
<b>Position:</b>	055
<b>Loop:</b>	N1
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	10
<b>Purpose:</b>	To specify identifying information
<b>Syntax Notes:</b>	<ol style="list-style-type: none"> <li>1 At least one of REF02 or REF03 is required.</li> <li>2 If either C04003 or C04004 is present, then the other is required.</li> <li>3 If either C04005 or C04006 is present, then the other is required.</li> </ol>
<b>Semantic Notes:</b>	<ol style="list-style-type: none"> <li>1 REF04 contains data relating to the value cited in REF02.</li> </ol>
<b>Comments:</b>	
<b>Notes:</b>	At least one occurrence of the REF is required in the LIN/N1 loop if PID04 equals RP Repeat sample.

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
>>	REF01	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification '7D' Tester Identification '7E' Collector Identification Code '7F' Repeat Location '7G' Data Quality Reject Reason '7H' EPA Test Type Purpose Code Refer to 003061 Data Element Dictionary for acceptable code values.	M ID 2/3
	REF02	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier See Appendix B	X AN 1/30
X	REF03	352	<b>Description</b> A free-form description to clarify the related data elements and their content	X AN 1/80
X	REF04	C040	<b>Reference Identifier</b> To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier	O
X	C04001	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	M ID 2/3
X	C04002	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	M AN 1/30
X	C04003	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	X ID 2/3
X	C04004	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	X AN 1/30
X	C04005	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification Refer to 003061 Data Element Dictionary for acceptable code values.	X ID 2/3
X	C04006	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	X AN 1/30

**Segment:** **PER** **Administrative Communications Contact**  
**Position:** 056  
**Loop:** N1  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 3  
**Purpose:** To identify a person or office to whom administrative communications should be directed

**Syntax Notes:**

- 1 If either PER03 or PER04 is present, then the other is required.
- 2 If either PER05 or PER06 is present, then the other is required.
- 3 If either PER07 or PER08 is present, then the other is required.

**Semantic Notes:**

**Comments:**

**Notes:** This segment should be included in the N1 loop identifying the name of the sample collector if this information is required.

#### Data Element Summary

		<u>Data</u>	<u>Name</u>	<u>Attributes</u>		
Ref.	Des.	Element				
>>	PER01	366	<b>Contact Function Code</b>	<b>M</b>	<b>ID</b>	<b>2/2</b>
			Code identifying the major duty or responsibility of the person or group named 'SL' Collector			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
	PER02	93	<b>Name</b>	<b>O</b>	<b>AN</b>	<b>1/35</b>
			Free-form name Name of the sample collector.			
X	PER03	365	<b>Communication Number Qualifier</b>	<b>X</b>	<b>ID</b>	<b>2/2</b>
			Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.			
X	PER04	364	<b>Communication Number</b>	<b>X</b>	<b>AN</b>	<b>1/80</b>
			Complete communications number including country or area code when applicable			
X	PER05	365	<b>Communication Number Qualifier</b>	<b>X</b>	<b>ID</b>	<b>2/2</b>
			Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.			
X	PER06	364	<b>Communication Number</b>	<b>X</b>	<b>AN</b>	<b>1/80</b>
			Complete communications number including country or area code when applicable			
X	PER07	365	<b>Communication Number Qualifier</b>	<b>X</b>	<b>ID</b>	<b>2/2</b>
			Code identifying the type of communication number Refer to 003061 Data Element Dictionary for acceptable code values.			
X	PER08	364	<b>Communication Number</b>	<b>X</b>	<b>AN</b>	<b>1/80</b>
			Complete communications number including country or area code when applicable			
X	PER09	443	<b>Contact Inquiry Reference</b>	<b>O</b>	<b>AN</b>	<b>1/20</b>
			Additional reference number or description to clarify a contact number			

**Segment:** **CID** Characteristic/Class ID

**Position:** 060

**Loop:** CID

**Level:** Detail

**Usage:** Optional

**Max Use:** 1

**Purpose:** To specify the general class or specific characteristic upon which test results are being reported or are to be taken

- Syntax Notes:**
- 1 At least one of CID01 CID02 CID04 or CID05 is required.
  - 2 If either CID03 or CID04 is present, then the other is required.
  - 3 If CID06 is present, then both CID03 and CID04 are required.
  - 4 If CID07 is present, then at least one of CID04 or CID05 is required.

**Semantic Notes:**

- Comments:**
- 1 CID06 specifies the individual code list of the agency specified in CID03.
  - 2 CID07 refers to whether or not the characteristic identified in CID04 or CID05 or both is affected by the product change. If it is affected, the value is "Y". A value of "N" is used when it is known that it will not be affected. Any other value indicates it is indeterminate.

**Notes:** At least one iteration of the CID loop is required for each sample processed. There will be a separate CID loop for each analyte tested and reported on. A transaction set can contain multiple CID loops.

#### Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
X	CID01	738	<b>Measurement Qualifier</b> Code identifying a specific product or process characteristic to which a measurement applies Refer to 003061 Data Element Dictionary for acceptable code values.	X ID 1/3
X	CID02	750	<b>Product/Process Characteristic Code</b> Code identifying the general class of a product or process characteristic Refer to 003061 Data Element Dictionary for acceptable code values.	X ID 2/3
>>	CID03	559	<b>Agency Qualifier Code</b> Code identifying the agency assigning the code values 'EP' EPA Analyte Code List 'CA' Chemical Abstract System Code List Note: Choose either the EPA or CAS Code List Refer to 003061 Data Element Dictionary for acceptable code values.	X ID 2/2
>>	CID04	751	<b>Product Description Code</b> A code from an industry code list which provides specific data about a product characteristic Appropriate code value from the above list	X AN 1/12
	CID05	352	<b>Description</b> A free-form description to clarify the related data elements and their content Analyte name	X AN 1/80
X	CID06	822	<b>Source Subqualifier</b> A reference that indicates the table or text maintained by the Source Qualifier	O AN 1/15
	CID07	1073	<b>Yes/No Condition or Response Code</b> Code indicating a Yes or No condition or response Use to indicate Microbe presence or absence 'Y' Microbes present 'N' Microbes not present Refer to 003061 Data Element Dictionary for acceptable code values.	O ID 1/1



**Segment:** **MEA** Measurements  
**Position:** 150  
**Loop:** MEA  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To specify physical measurements or counts, including dimensions, tolerances, variances, and weights(See Figures Appendix for example of use of C001)

**Syntax Notes:**

- 1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
- 2 If MEA05 is present, then MEA04 is required.
- 3 If MEA06 is present, then MEA04 is required.
- 4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
- 5 Only one of MEA08 or MEA03 may be present.

**Semantic Notes:** 1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.

**Comments:** 1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

**Notes:** All test results should be reported here. A separate CID loop should be used for each test method reported.

#### Data Element Summary

Ref. <u>Des.</u>	Data <u>Element</u>	<u>Name</u>	<u>Attributes</u>
MEA01	737	<b>Measurement Reference ID Code</b> Code identifying the broad category to which a measurement applies 'TR' Test Results 'CO' Concentration 'EN' Environmental conditions 'CT' Counts  Note: 'EN' are the data values to be reported reflect the environmental conditions surrounding a situation including but limited to test environments.	<b>O ID 2/2</b>
MEA02	738	<b>Measurement Qualifier</b> Code identifying a specific product or process characteristic to which a measurement applies 'ADM' Dye Manufacturing Units 'AGI' Aggressive Index 'CRF' Free Chlorine Residual 'CRT' Total Chlorine Residual 'CTT' Contact Time 'FLV' Flavor Threshold 'LAI' Langlier Index 'BR' Luminance (brightness) 'PX' Purity 'COL' Color Units 'ABO' Absorbance 'OTH' Odor Threshold 'FR' Flow Rate 'PHA' pH Measurement 'TUR' Turbidity 'OBT' Observed Temperature (Sample Water Temperature) 'FLV' Flavor Threshold Refer to 003061 Data Element Dictionary for acceptable code values.	<b>O ID 1/3</b>
MEA03	739	<b>Measurement Value</b> Refer to 003061 Data Element Dictionary for acceptable code values.	<b>X R 1/20</b>

MEA04	C001	The value of the measurement			
		<b>Composite Unit of Measure</b>	<b>X</b>		
		To identify a composite unit of measure(See Figures Appendix for examples of use.)			
		'UN' Unit			
		'ML' Milliliter			
		'LT' Liter			
		'ML::100' 100Milliliters			
		'ML::400' 400Milliliters			
		'GA' Gallon			
		'GA::100' 100 Gallons			
		'GA::400' 400 Gallons			
		'CE' Degrees Celsius			
		'FA' Degrees Fahrenheit			
		'M1' Milligrams per liter			
		'59' Parts per million			
		'MC:::LT:-1' Micrograms per liter			
		'61' Parts per Billion			
		'R8:::001' Millirems			
		'R8:::001:LT:-1::YR:-1' Millirems per liter per year			
		'4D:::000000000001:LT:-1' Picocuries per liter			
		'GR:::000000001:LT:-1' Nanograms per liter			
		'MR:::000000001' Nanometers			
		'GE' Pounds per Gallon			
		'87' Pounds per Cubic foot			
		'ZP::1000000:LT:-1 Millions of fibers per liter			
		'NR:::CM:-1' Microhos per centimeter			
C00101	355	<b>Unit or Basis for Measurement Code</b>	<b>X ID 2/2</b>		
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
		'UN' Unit			
		'ML' Milliliter			
		'LT' Liter			
		'GA' Gallon			
		'CE' Degrees Celsius			
		'FA' Degrees Fahrenheit			
		'FK' Fibers			
		'M1' Milligrams per Liter			
		'59' Parts per Million			
		'MC' Micrograms per Liter			
		'61' Parts per Billion			
		'R8' Millirems			
		'4D' Picocuries per Liter			
		'GR' Nanograms per liter			
		'MR' Nanometers			
		'GE' Pounds per Gallon			
		'87' Pounds per Cubic Foot			
		'ZP' Million of Fibers per liter.....			
		'NR' Microhos per Centimeter.....			
		'FK' Fibers			
		Refer to 003061 Data Element Dictionary for acceptable code values.			
C00102	1018	<b>Exponent</b>	<b>O</b>	<b>R</b>	<b>1/15</b>
		Power to which a unit is raised			
C00103	649	<b>Multiplier</b>	<b>O</b>	<b>R</b>	<b>1/10</b>

		Value to be used as a multiplier to obtain a new value			
		100			
		400			
		1000000			
		.001			
		.0000000000001			
		.000000001			
C00104	355	<b>Unit or Basis for Measurement Code</b>	O	ID	2/2
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
		'LT' Liter			
		'CM' Centimeter			
		Refer to 003061 Data Element Dictionary for acceptable code values.			
C00105	1018	<b>Exponent</b>	O	R	1/15
		Power to which a unit is raised			
		'-1'			
C00106	649	<b>Multiplier</b>	O	R	1/10
		Value to be used as a multiplier to obtain a new value			
C00107	355	<b>Unit or Basis for Measurement Code</b>	O	ID	2/2
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
		'YR' Per Year			
		Refer to 003061 Data Element Dictionary for acceptable code values.			
C00108	1018	<b>Exponent</b>	O	R	1/15
		Power to which a unit is raised			
		'-1'			
C00109	649	<b>Multiplier</b>	O	R	1/10
		Value to be used as a multiplier to obtain a new value			
C00110	355	<b>Unit or Basis for Measurement Code</b>	O	ID	2/2
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
		Refer to 003061 Data Element Dictionary for acceptable code values.			
C00111	1018	<b>Exponent</b>	O	R	1/15
		Power to which a unit is raised			
C00112	649	<b>Multiplier</b>	O	R	1/10
		Value to be used as a multiplier to obtain a new value			
C00113	355	<b>Unit or Basis for Measurement Code</b>	O	ID	2/2
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
		Refer to 003061 Data Element Dictionary for acceptable code values.			
C00114	1018	<b>Exponent</b>	O	R	1/15
		Power to which a unit is raised			
C00115	649	<b>Multiplier</b>	O	R	1/10
		Value to be used as a multiplier to obtain a new value			
MEA05	740	<b>Range Minimum</b>	X	R	1/20
		The value specifying the minimum of the measurement range			
		Minimum regulatory or laboratory detection level.			
		Note: To convey the minimum regulatory or minimum laboratory detection level when results are reported as less than these levels			
X	MEA06	<b>Range Maximum</b>	X	R	1/20
		The value specifying the maximum of the measurement range			

	<b>MEA07</b>	<b>935</b>	<b>Measurement Significance Code</b>	<b>O ID 2/2</b>
			Code used to benchmark, qualify or further define a measurement value	
			'07' Less than	
			Note: Used to convey the fact that the test results were less than the level identified in MEA05.	
			Refer to 003061 Data Element Dictionary for acceptable code values.	
	<b>MEA08</b>	<b>936</b>	<b>Measurement Attribute Code</b>	<b>X ID 2/2</b>
			Code used to express an attribute response when a numeric measurement value cannot be determined	
			'05' Undetectable	
			'44' Not reportable/Not applicable	
			Note: Used when the test results are either below detection level or regulatory reporting level.	
			Refer to 003061 Data Element Dictionary for acceptable code values.	
<b>X</b>	<b>MEA09</b>	<b>752</b>	<b>Surface/Layer/Position Code</b>	<b>O ID 2/2</b>
			Code indicating the product surface, layer or position that is being described	
			Refer to 003061 Data Element Dictionary for acceptable code values.	
<b>X</b>	<b>MEA10</b>	<b>1373</b>	<b>Measurement Method or Device</b>	<b>O ID 2/4</b>
			The method or device used to record the measurement	
			Refer to 003061 Data Element Dictionary for acceptable code values.	

**Segment:** DTM Date/Time Reference  
**Position:** 160  
**Loop:** MEA  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 10  
**Purpose:** To specify pertinent dates and times  
**Syntax Notes:** 1 At least one of DTM02 DTM03 or DTM06 is required.  
2 If either DTM06 or DTM07 is present, then the other is required.  
**Semantic Notes:**  
**Comments:**

Data Element Summary						
	Ref. Des.	Data Element	Name	Attributes		
>>	DTM01	374	<b>Date/Time Qualifier</b> Code specifying type of date or time, or both date and time '090' Analysis Start Date '091' Analysis Completion Date '621' State Notification Date Refer to 003061 Data Element Dictionary for acceptable code values.	M	ID	3/3
X	DTM02	373	<b>Date</b> Date (YYMMDD)	X	DT	6/6
	DTM03	337	<b>Time</b> Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99) Expressed as HHMM	X	TM	4/8
X	DTM04	623	<b>Time Code</b> Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow Refer to 003061 Data Element Dictionary for acceptable code values.	O	ID	2/2
X	DTM05	624	<b>Century</b> The first two characters in the designation of the year (CCYY)	O	N0	2/2
	DTM06	1250	<b>Date Time Period Format Qualifier</b> Code indicating the date format, time format, or date and time format 'D8' Date expressed CCYYMMDD Refer to 003061 Data Element Dictionary for acceptable code values.	X	ID	2/3
	DTM07	1251	<b>Date Time Period</b> Expression of a date, a time, or range of dates, times or dates and times Expressed as CCYYMMDD	X	AN	1/35

<b>Segment:</b>	<b>REF</b> <b>Reference Identification</b>
<b>Position:</b>	170
<b>Loop:</b>	MEA
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	10
<b>Purpose:</b>	To specify identifying information
<b>Syntax Notes:</b>	<ol style="list-style-type: none"> <li>1 At least one of REF02 or REF03 is required.</li> <li>2 If either C04003 or C04004 is present, then the other is required.</li> <li>3 If either C04005 or C04006 is present, then the other is required.</li> </ol>
<b>Semantic Notes:</b>	<ol style="list-style-type: none"> <li>1 REF04 contains data relating to the value cited in REF02.</li> </ol>
<b>Comments:</b>	
<b>Notes:</b>	Note: If the LIN/CID/MEA loop is used at least one occurrences of the REF is required in the LIN/CID/MEA loop for data quality. A second iteration is required to convey rejection reason if data quality code equals 'R' .

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
>>	REF01	128	<b>Reference Identification Qualifier</b> Code Qualifying the Reference Identification 'D0' Data quality '7D' Tester Identification '7E' Collector Identification '7F' Repeat Location '7G' Data quality reject reason '7H' EPA test purpose code Refer to 003061 Data Element Dictionary for acceptable code values.	M ID 2/3
	REF02	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Data Quality 'A' Accepted 'R' Rejected 'P' Preliminary Data Quality reject reason 'RC' Requestor Cancelled 'IF' Instrument Failure 'LE' Lab Error 'OT' Other 'WR' Water System Rejected 'LC' Lab not Certified 'TNTC' Too Numerous to count 'CNFG' Confluent Growth 'TCNG' Turbid Culture No Gas Test Type 'C' Confirmed 'P' Presumptive	X AN 1/30
X	REF03	352	<b>Description</b> A free-form description to clarify the related data elements and their content	X AN 1/80
X	REF04	C040	<b>Reference Identifier</b> To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier	O
X EPA863I	C04001	128	<b>Reference Identification Qualifier</b>	M ID 2/3 June 24, 1997

			Code Qualifying the Reference Identification			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
X	C04002	127	<b>Reference Identification</b>	M	AN	1/30
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
X	C04003	128	<b>Reference Identification Qualifier</b>	X	ID	2/3
			Code Qualifying the Reference Identification			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
X	C04004	127	<b>Reference Identification</b>	X	AN	1/30
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
X	C04005	128	<b>Reference Identification Qualifier</b>	X	ID	2/3
			Code Qualifying the Reference Identification			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
X	C04006	127	<b>Reference Identification</b>	X	AN	1/30
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			

**Segment:** **LM** Code Source Information  
**Position:** 172  
**Loop:** LM  
**Level:** Detail  
**Usage:** Optional  
**Max Use:** 1  
**Purpose:** To transmit standard code list identification information  
**Syntax Notes:**  
**Semantic Notes:**  
**Comments:** 1 LM02 identifies the applicable industry code list source information.

Data Element Summary				
Ref.	Data	Name	Attributes	
Des.	Element		M	ID 2/2
>> LM01	559	Agency Qualifier Code		
		Code identifying the agency assigning the code values		
		'EP' Environmental Protection Agency		
		Refer to 003061 Data Element Dictionary for acceptable code values.		
LM02	822	Source Subqualifier	O	AN 1/15
		A reference that indicates the table or text maintained by the Source Qualifier		
		'MCB1' Microbiological table of result		
		'SSTR' Sample Summary Table of Results		



<b>Segment:</b>	<b>LQ</b> Industry Code
<b>Position:</b>	174
<b>Loop:</b>	LM
<b>Level:</b>	Detail
<b>Usage:</b>	Mandatory
<b>Max Use:</b>	>1
<b>Purpose:</b>	Code to transmit standard industry codes
<b>Syntax Notes:</b>	1 If LQ01 is present, then LQ02 is required.
<b>Semantic Notes:</b>	
<b>Comments:</b>	
<b>Notes:</b>	Note: This segment is mandatory if a LM segment is present.

Data Element Summary				
Ref.	Data			
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>	
X	LQ01	1270 Code List Qualifier Code	O	ID 1/3
		Code identifying a specific industry code list		
		Refer to 003061 Data Element Dictionary for acceptable code values.		
	LQ02	1271 Industry Code	X	AN 1/30
		Code indicating a code from a specific industry code list		
		'COLONIES' Colonies		
		'TUBES' Tubes		
		'MPN' Most Portable Number		
		'FCU' Colony forming units		
		'PFU' Plaque forming units		
		'CYSTSO' Cysts, observed (Giardia Lamblia)		
		'OCYSTSO' Oocyst, observed (Cryptosporidium)		
		'CYSTSC' Cysts, calculated (Giardia Lamblia)		
		'OCYSTSC' Oocysts, calculated (Cryptosporidium)		
		'OBSVNS' Observations (for measuring other organism)		

<b>Segment:</b>	<b>TMD</b> Test Method
<b>Position:</b>	201
<b>Loop:</b>	TMD
<b>Level:</b>	Detail
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To describe the nature of the test performed
<b>Syntax Notes:</b>	<b>1</b> If either TMD02 or TMD03 is present, then the other is required. <b>2</b> If TMD09 is present, then TMD02 is required.
<b>Semantic Notes:</b>	<b>1</b> TMD07 is the date of the test method as assigned by the issuing organization. <b>2</b> TMD08 is the document revision number.
<b>Comments:</b>	<b>1</b> TMD09 specifies the individual code list of the agency specified in TMD02.
<b>Notes:</b>	Note: The TMD loop is used when an EPA defined analysis method applies to the test results reported.

Data Element Summary					
Ref.	<u>Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>	
	<b>TMD01</b>	<b>750</b>	<b>Product/Process Characteristic Code</b>	<b>O ID</b>	<b>2/3</b>
			Code identifying the general class of a product or process characteristic		
			'RM' Results Method Code		
			Refer to 003061 Data Element Dictionary for acceptable code values.		
	<b>TMD02</b>	<b>559</b>	<b>Agency Qualifier Code</b>	<b>X ID</b>	<b>2/2</b>
			Code identifying the agency assigning the code values		
			'EP' Environment Protection Agency Code List		
			Refer to 003061 Data Element Dictionary for acceptable code values.		
	<b>TMD03</b>	<b>751</b>	<b>Product Description Code</b>	<b>X AN</b>	<b>1/12</b>
			A code from an industry code list which provides specific data about a product characteristic		
			Approved code from code list		
<b>X</b>	<b>TMD04</b>	<b>937</b>	<b>Test Administration Method Code</b>	<b>O ID</b>	<b>2/2</b>
			Code specifying the method of administering the test		
			Refer to 003061 Data Element Dictionary for acceptable code values.		
<b>X</b>	<b>TMD05</b>	<b>938</b>	<b>Test Medium Code</b>	<b>O ID</b>	<b>2/2</b>
			Code specifying organism on which the test was performed		
			Refer to 003061 Data Element Dictionary for acceptable code values.		
<b>X</b>	<b>TMD06</b>	<b>352</b>	<b>Description</b>	<b>O AN</b>	<b>1/80</b>
			A free-form description to clarify the related data elements and their content		
<b>X</b>	<b>TMD07</b>	<b>373</b>	<b>Date</b>	<b>O DT</b>	<b>6/6</b>
			Date (YYMMDD)		
<b>X</b>	<b>TMD08</b>	<b>127</b>	<b>Reference Identification</b>	<b>O AN</b>	<b>1/30</b>
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier		
<b>X</b>	<b>TMD09</b>	<b>822</b>	<b>Source Subqualifier</b>	<b>O AN</b>	<b>1/15</b>
			A reference that indicates the table or text maintained by the Source Qualifier		

<b>Segment:</b>	<b>CTT Transaction Totals</b>
<b>Position:</b>	005
<b>Loop:</b>	
<b>Level:</b>	Summary
<b>Usage:</b>	Optional
<b>Max Use:</b>	1
<b>Purpose:</b>	To transmit a hash total for a specific element in the transaction set
<b>Syntax Notes:</b>	<b>1</b> If either CTT03 or CTT04 is present, then the other is required. <b>2</b> If either CTT05 or CTT06 is present, then the other is required.
<b>Semantic Notes:</b>	
<b>Comments:</b>	<b>1</b> This segment is intended to provide hash totals to validate transaction completeness and correctness.
<b>Notes:</b>	Note: One iteration of the CTT segment is required.

Data Element Summary						
	Ref. Des.	Data Element	Name	Attributes		
>>	CTT01	354	Number of Line Items	M	N0	1/6
			Total number of line items in the transaction set			
			The number in CTT01 element is the total number of LIN segments in the TS.			
X	CTT02	347	Hash Total	O	R	1/10
			Sum of values of the specified data element. All values in the data element will be summed without regard to decimal points (explicit or implicit) or signs. Truncation will occur on the left most digits if the sum is greater than the maximum size of the hash total of the data element.			
			Example:			
			-.0018 First occurrence of value being hashed. .18 Second occurrence of value being hashed. 1.8 Third occurrence of value being hashed. 18.01 Fourth occurrence of value being hashed. ----- 1855 Hash total prior to truncation. 855 Hash total after truncation to three-digit field.			
X	CTT03	81	Weight	X	R	1/10
			Numeric value of weight			
X	CTT04	355	Unit or Basis for Measurement Code	X	ID	2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
X	CTT05	183	Volume	X	R	1/8
			Value of volumetric measure			
X	CTT06	355	Unit or Basis for Measurement Code	X	ID	2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
			Refer to 003061 Data Element Dictionary for acceptable code values.			
X	CTT07	352	Description	O	AN	1/80
			A free-form description to clarify the related data elements and their content			

**Segment:** **SE** Transaction Set Trailer  
**Position:** 010  
**Loop:**  
**Level:** Summary  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

**Syntax Notes:**

**Semantic Notes:**

**Comments:** 1 SE is the last segment of each transaction set.

#### Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
>>	SE01	96	<b>Number of Included Segments</b> Total number of segments included in a transaction set including ST and SE segments	<b>M N0 1/10</b>
>>	SE02	329	<b>Transaction Set Control Number</b> Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	<b>M AN 4/9</b>